The Role of IT-Based Strategies in Organizational Empowerment and Creating Competitive Advantage

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Abstract
What is certain is that the adoption of IT-based strategies in the organization will lead to an increase in the productivity of resources and improvement in the organizational processes. Nowadays, information technology capabilities are out of their traditional role and have become a tool in order to create the competitive advantage and increase the market share. In this article, it is tried to investigate the strategic information technology and related services and to analyze their ability to create the competitive advantage for the organization. Information technology is based on the integration level of processes and data structures. The research findings suggest that IT strategies have had an important role in empowering of organizations and organization that has a specific strategy will have a higher competitive advantage and better performance. According to the results of this research, IT-based strategies can become a competitive advantage and facilitate the strategic decision-making of organization. Finally, a model is provided for the purpose of explaining the information technology-based strategies and creating empowerment and competitive advantage in the organization.

Keywords: IT strategies, competitive advantage, organizational empowerments, IT strategic management

Introduction
Recently, many researchers of IT industry focus on the role of IT in the empowerment and improving business processes and its impact on the creation of competitive advantages (Chen, 2010). Even many years after massive investments in IT economic infrastructure, many companies still are not able to benefit from their own economic and financial results (Thomas, 2009). This is despite the fact that eighty percent of production costs are specified in the design and production stages (Corbin 2008). Strategic views of many companies are focused to explore the effectiveness level of IT in the field of production and the company's capabilities (Dane, 2010). Strategic management research can be divided into two main categories: content research and process research. Content research is done with the aim of identifying the factors of increasing the competitive advantage of organizations, and process research that investigate how the organization strategies will become apparent over time. In other words, content research specify some steps that must be followed in order to be successful and process research focus on how to take these steps in action (Spee, 2009). Leek 2003 prepared an integrated framework for e-business that insisted e-business should be holistic, dynamic and clear and introduced the IT innovative strategies and e-business applications that led to competitiveness and improving business. As a result, the development and implementation of IT strategy was the main topic of information management in industry and academia. Doherty (2009) proposed an IT strategy that includes plans for the development of IT practical projects and help to organizations to identify their targets. If an organization is lacking organizational capabilities or information systems, the implementation of information technology strategy can have negative impacts on it. Many studies have shown that...
organizations using strategic planning can focus on creating competitive advantage and organizational empowerment. However, these IT strategies are implemented rarely as effective. This article investigates the use of IT strategy implementation and explains its uses according to the information systems capability for creating competitive advantage and organization empowerment. Effective use of information technology requires the strategy accordance to the structure and organizational processes. Otherwise, the potential of information technology will be hidden in the shadow of organizations' current systems. Finally, this study seeks to answer the following questions:

How IT-based strategies lead to empowerment and create competitive advantage in the organization?

What are the factors affecting on the creating empowerment and competitive advantage in information technology field?

**Review of the literature**

**Competitive advantage and IT strategy**

The aim of strategic IT is establishing of medium to long term program for using IT and implementing of related tools. In the past, businesses often use the similar methods to develop the strategies of information systems in the decision-making process. For example, Thompson (2010) created the model of 5-step information system strategic management that included the forming of business strategy and finding the strategic opportunities in the use of information systems, designing the establishment system framework and implementation of the systems, and assessing the impact of strategic information systems on the competitiveness. Mathiassen (2008) designed a conceptual framework for strategic planning of information systems. Their framework proposed three aspects of information systems strategy, IT strategy and management strategy of information. Chen (2010) created the company framework to develop the strategies and programs of information systems. This framework was based on the integrity of business needs and optimizing the value chain. Groups of e-business, including e-commerce, enterprise resource planning (ERP), supply chain management (SCM), customer relationship management, knowledge management and so on. So at the time of implementing e-business, company should consider the key feature and local resources and has complete planning and implementation of IT strategies to create competitive advantage and entry into new areas of the economy. Competitive advantages of information technology strategy are very important in assessing the outcomes of organization and adapting to the environmental changes. Studies that are conducted by the researchers show that many organizations have designed and implemented comprehensive programs to IT strategies but have been unable to create the competitive advantage and cannot implement it that is led to the poor performance of the organization. Martin (1998) pointed out that continuous assessment of the programs in IT strategy is important to ensure that programs should lead to creating a competitive advantage and improving the organizational performance. Their results showed that users' participation and accountability in the implementation of the IT strategy are the most important factors that affect the implementation of the IT strategy and organizational empowerment. Campo (2010) noted that the planning of strategic system consists of three stages of designing, program development and implementation. Implementation stage includes difficulty in top management commitment and oversight on IT programs that were created. Doherty (2009) emphasized on the strategic implementation importance that showed the formation and implementation of the IT strategy consists of four courses. In short having a complete program that will cover information technology strategy and lead to competitive advantage is essential and necessary for every business. However, effective implementation of the IT strategy is necessary to help business and achieve strategic objectives and ultimately create the
competitive advantage. Thereby improving the implementation of the IT strategy of the business and finding the factors that affect the quality of the implementation of this strategy is also important. Businesses must be able to implement IT strategies and allocate the adequate resources for the implementation of the IT strategy to ensure that their programs are effectively implemented. Based on the views of resource-based, businesses are considered as a combination of assets and capabilities. Competitive advantage is created by combining the strategic assets and capabilities. These approaches show businesses including assets and unique features that allow them to control the competitive advantage in a field. All successful businesses have their own unique resources and capabilities. As long as they are used effectively, the organizations grow and create their positions in the market. The information systems capability is closely related to these three challenges. Ward (2012) noted that higher capability in the information systems causes to improve information systems and reduction of organizational systems capabilities reduces the opportunity of information systems success. An organization that uses information technology to strengthen their competitive advantage should also strengthen the capability of effectiveness of the information systems. Campo (2010) considers IT as an important feature of an organization and uses experimental methods to investigate the relationship between IT capability and business performance.

**Organizational empowerment and IT**

Vargo (2011) noted in the current competitive environment, the companies has to be innovative for survive. Increase of using information technology will undoubtedly cause to increase employment opportunities. Balogun (2006) considers many empirical studies show the positive impact of the use of information technology, Organizations that are among two or more intermediary parts can play an important role in innovation. Intermediary organizations can help to companies to be able to increase their chances and success in innovation through the production of services and new products and R & D activities (Chen, 2010). Portals also have numerous variations on how their performance as an intermediary by their role and impact on organizations (Ford, 2011). Predicting the likely changes will cause to prevent the repetition of some steps and this will lead to product innovation and empowerment of organization, if there is no coordination between IT and organizational innovation does not produce the desired results. In one of the studies of Calantone (2006) reported that in some organizations use the technology does not create any change in the company's results. The inability of designers in the implementation of the objectives can be also another reason. If the purpose is not evident in the design, this goal will not be implemented in the providing service as well. Often need some data from IT again to be returned to the system. Such repeated processes are often not related to the technology but face with the institutional arrangements. IT should cause save time and money and ultimately organization empowerment through changes in processes, facilitating the current activities of the organization, on the other hand, the organizational performance varies based on the abilities of IT applications (Yeniyurt, 2006). European and American companies almost 3 years before Japan use some technologies but based on the results of Japanese companies, have been successful in this regard (Cooper, 2006). In late 1990, US companies equip 100% of their infrastructures to new technologies, while in Japan only 49% of the subsidiary companies were equipped with this technology. Japanese companies may be later than their Western counterparts are equipped to the technologies but have been able to coordinate well their companies. In other words, Japanese companies to solve problems that arise in the early stages have high organizational abilities. Calantone (2006) investigated 240 US companies and found that use of information technology will not directly influence the outcome of product development. On the other hand, the applications of these technologies affect the functional information sharing in the field of organization product development, but there will not have so much impact on improving production results. For example, information technologies such as three-
dimensional design system is a communication tool by which share the early stages of production, different working groups, complex problems of design, process technology and information buying, the use of such technologies can lead to the development of production and empowerment of the organization and allow the main and subsidiaries companies to have integrated activities.

**Strategic management and competitive advantage**

While most attention has focused on the challenges to not align the strategic objectives of organization with investments, capabilities and potential of information technology (Chen, 2010) and of course the challenge to implement that functionality is often organized, less considered to know how the widespread implementation of obtained change from strategic management (Johnson, 2007) and IT investments and interests (Doherty, 2009). According to these challenges, the main concern about the strategy of information systems and also limitations and competitive advantage remains (Ramos, 2012). The organizations that have a stable strategic objective, distribute resources effectively and in the competitive activities to achieve the objectives deal with the choosing information systems and its capabilities (Thompson, 2010). Unfortunately, the concept of strategic information technology used in organizations usually depends on the simple hypothesis that for the system is strategically successful; IT must be placed with the success in the related procedures. The successful implementation of IT strategies need to focus on competitive advantage (Merali, 2012), and this means the adjustment and reorganization the strategic of organizational practices (Leek, 2003). The main challenge of competitive strategy considers resolving the complexity of the network including the actions, policies and economic (Nolan, 2012). Because of the strategic role of changing due to IT is rising, sub-organization procedures to facilitate changes, and how to determine the path of the changes follow the worries a lot. Campo (2010) investigated the relation of the information technology model and business performance and noted that IT capability can have a significant impact on business performance. Chandler (2011) believes that businesses with higher information technology capability can provide IT services to the entire organization. With respect to e-businesses and IT developments in the competitiveness of companies, a good strategy would be planned. Implementation of strategy is related to change in the market but the capability of entire organization IT has an important role in it. Therefore, the organization's IT capabilities developing and creating competitive advantage is one of the key tasks of e-businesses. The results that the researchers suggest are the symbol of the impacts that information technology capability has on the organizational competitive advantage, business performance and the main feature. However, the studies, the quality of implementation of the IT strategy have been investigated with a focus on the quality of information systems.

**Research Methodology**

This study is conducted based on the case study on the implementation of the strategic IT and creating competitive advantage. Information has been collected and analyzed through semi-structured interview and visit of active companies in the field of information technology. The study followed the created changes through strategic information technology in the organization and how to create competitive advantage. Interviews with some operation managers and companies were done and how the operation of strategic information in the organization and its role in organizational empowerment was analyzed. The company's products solely are in the field of information technology, including systems, software, data center services and associated activities. IT strategic roles were analyzed in identifying and developing products, analysis methodologies and information systems designs and related services and support mechanisms. Another part of the required information was collected from CRM software that existed in the call center of companies. Given the direct relationship of these centers with the customers and their direct communication with
current and future needs of customers considered the mentioned information. Also interviews were conducted by staff of the companies call center. Snowballing technique was used to enhance data reliability that by it, it was asked the interviewees to introduce people who have close relationship with customers. Due to constant interaction with customers, their opinions are important and in determining the strategies of organization were effective. Also, one of the consultants of company was in the project team and ensured that the main elements and theoretical framework for the study is covered. In this study, in order to reduce errors and increase accuracy of the data, questionnaire is not used. In this regard, through direct interviews with selected individuals, data were collected and analyzed by the research team.

**Data analysis and results**

After analysis and review of documents and interviews, data were coded and analyze. As well as related information, including process descriptions, the role of strategic IT, organizational charts, reports and management dash boards, quality and quantity of the information and obtained competitive advantage was classified by SAW method. It was tried to check data as a series of additional data (cumulative) to enable researchers to determine the nature of the company's strategies and their operating environments (e.g. interaction relation with clients to determine strategic IT position in relation). In order to increase reliability coefficient of data analysis, two doctoral students were invited to cooperate in the research. Their offers were the basis for the correction of data, which increases the reliability and validity of the data. After analyzing the results, the factors affecting the organizational empowerment and creating competitive advantage through information technology were identified that are described below.

**Empowerments**

**Creating authority organizational units**

The nature of information technology is in a way that encourages people to progress and to date. IT by creating individual and collective ability in people increases their incentives to compete and be at the main arena of the organization. Based on the analysis of the interviews, it was revealed some units reached to a degree of maturity that put their activities in the course of organization main strategies. The units with courage and avoiding tension, while carrying out the current operations placed major approaches of organization to the organization's agenda. Organizational empowerment obtained of such actions is caused develop of synergy in people and improve desired outcomes. If the performance of these units continues as well, there will be the possibility of creating companies that will also act independently. Another important point is that the speed of information flow and access to data records is the other features of such organizational approaches. This method is useful when its impact on output of organization is also evident and contributes to the realization of strategic objectives.

**Learning and e-learning**

The research findings showed mastery on information and communication technology and its utilization, improved the organizational strategies and training of human resources is the major factors. Sharing information in the organization through messengers and internal systems has increased the ability of individuals. The correspondence that is done as the internal unit and the external unit, has strengthened the sense of learning so that has created new styles in the solving the internal problems of organization. The virtual exchange of information in some cases as a short-term electronic classes (1 to 2 hours) and are held during working hours. The trainings have had a significant impact on output of units and increase of their abilities.
Evaluate the performance as the online strategy of the organization

According to the research results, creating the employee’s performance evaluation system is effective in increasing individual and organizational abilities. Existing electronic performance evaluation system in the organization as individuals register the daily operation will have a direct impact on alignment of the company's current activities with strategies. Sometimes, crises and the current problems out the organization form the main route. On the other hand, performance evaluation as periodic does not reflect the results actually. The interesting point is that evaluation electronically by creating the possibility of monitoring the current problems of organization provide the targeted following of strategies in daily activities of organization.

Required change acceptance of information technology in the organization

According to the managers' idea, the most important aspects of change are the changing in applying and using information technology. Creating change due to the penetration of IT in the organization requires its own management, because these changes are not predictable and often lead to stress. In this regard, staff briefing sessions are useful in order to understand the change stages and need for attention to it in the current business environment. The changes that as technical (work) or personality (non-work) will appear in the organization is required to use variety of strategies to not far the organization from the main objectives. The results showed in case of the clear articulation of goals and strategies of organization for individuals, the resistance and destructive challenges will be reduced.

Competitive Advantages

Localization of IT methodologies

Based on the conducted studies, it was found that design and implement of customers required systems requires using a variety of methodologies. Results showed that the specific application of software systems requires localization of methodologies that sometimes challenge the implementation. In the present time selling software packages of companies is faced with problems in the long run. According to call center staff, some fixed modules of software and systems have not always been applied and should be considered of design team before designing. Sometimes a combination of methodologies based on the customers' needs makes more favorable the stages of implementation and system implementation. It seems that the intelligence of analysis team and design in the selection and methodology localization facilitates the realization of business strategies, and ultimately the competitive advantage.

Thoughts lead towards IT-based strategies

Amazing developments in information technology has created many changes in the growth and development of businesses. Access to new tools through advanced technologies offers a new definition of competition and strategy in the modern world. The research results showed that if organization does not lead the minds of customers in line with these developments it means the elimination from the competition. What were clear were customers' attitudes that was much under the influence of capabilities and abilities of organization and in the case of optimal use of technology, a growing confidence of customers to the products and services to the organization. The results showed that the strategy of the organization will be influenced by the attitudes and feedbacks. Also trust and guidance of customers' thoughts can also be one of the main strategies of the organization and competitive advantages in maintain market share and development of products in the long run.

Détenue of organization through the application of information technology

Analysis of the research results showed one of the best ways to identify factors causing stress in the organization is the increase of awareness and IT development in the current activities, since
created transparency through technology development, while improving the level of knowledge and awareness of individuals increases the possibility of following and monitor of the organizational business events. On the other hand the informal communication of individuals will cause to creating common interests and hobbies, sympathy and empathy and ultimately reducing the working tensions. Of course, if informal communications is in conflict with organization strategies, in achieving long-term goals causes disorder and disturbs the atmosphere of the organization. The research results proved the cases to cause focus of the organization on the major strategies and create competitive advantage, and reduces deviation from the intended route is the attention to opinions and tastes of people, attention to a non-discursive signs and prevent of working disclosures in the organization's environment. These cases in customers' feedbacks after the working sessions are clearly understood.

**Strategy pragmatism rather than slogan**

According to the people opinion in the conducted interviews the focus of organization on the realization of customers' requirements far from zooming and vain justifications increases the confidence of customers in the long run. Meetings in order to verify and prove of axioms not only will not have the desired effects but also increase the possibility of misunderstood in customers. The results showed the lack of too much trying of managers and staff of organization for showing personal and organizational capabilities could become major competitive advantages and creates a good satisfaction in customers. The reason of this issue is the capability of information technology in proving the abilities of organization that in the case of recognizing the customer needs does not need to justify double the services. According to an employee of the call center for providing services based on customer requirements, it does not need to slogan and this case has been seen in the customers' feedback indirectly. The investigations show that the attitude of managers in the long run will be changed to a strategy and competitive advantage.

**Conclusion**

This research expresses a clear change in the formulation of strategies and creates competitive advantage, because from the other ways and within the current activities can follow and institutionalize the organization's overall strategy. Understanding the complexities of today's business environment requires intelligent and considering all aspects that are essential in the development and implementation of organization strategies. As the results showed that in the case of adopting the professional measures by the managers and employees, new and reliable strategies and competitive advantages appear that will lead to the creation of added value and long-term stability of the organization.

![Figure 1: Model of organization empowerment and achieving competitive advantage based on technology-based strategies](http://www.european-science.com)
Figure 1 shows the empowerment model of organization and achieving of competitive advantage based on information technology-based strategies.

On the other hand, an image that drawn from the organization in the mind of customers is hidden in the current activities of the organization and it is traceable in the meetings and customers feedbacks. No doubt the empowerment approach and create competitive advantage should be existed in primary thinking of all the people at different organizational levels. The findings of this study proved that new perspectives and achieving competitive advantage can be achieved in the current activities of the organization and from the attitude of the staff.

References

Openly accessible at http://www.european-science.com


